Non-Point Source Contamination and Poorly Sealed Wells in the Treasure Valley Aquifer

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Shallow Treasure Valley Aquifer

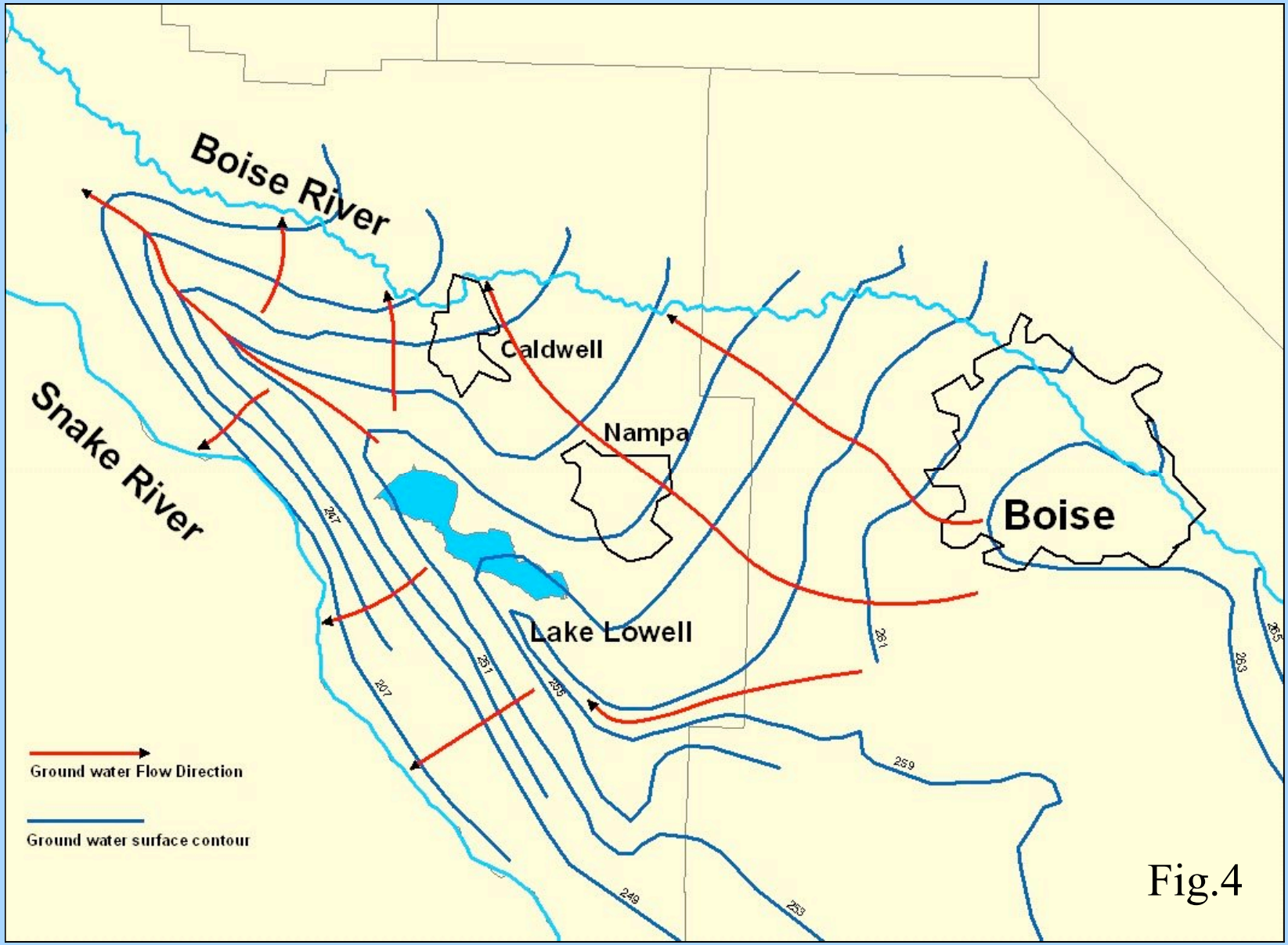


Fig.4

Arsenic is an example of a widespread, non-point source contaminant in the Treasure Valley

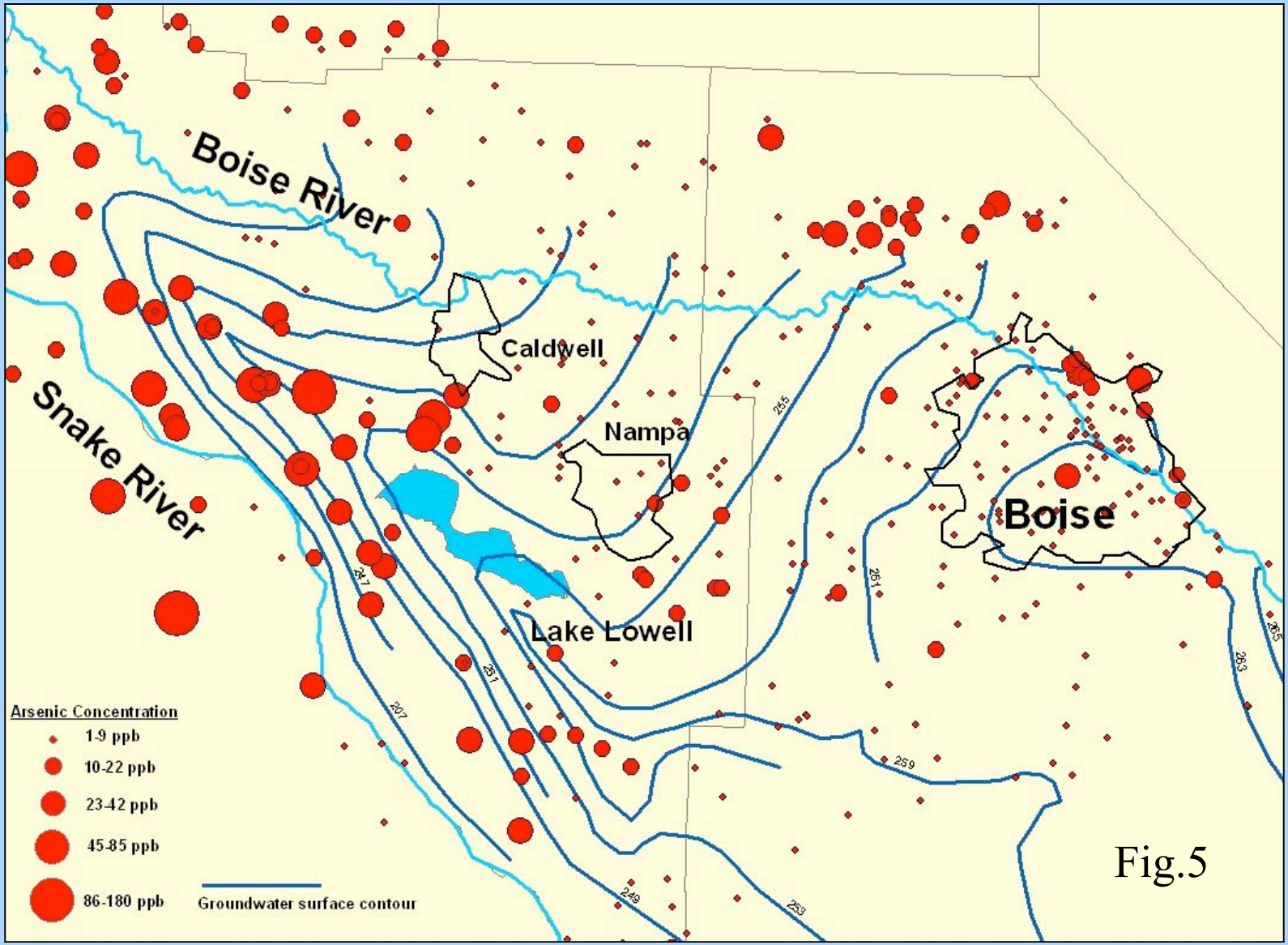
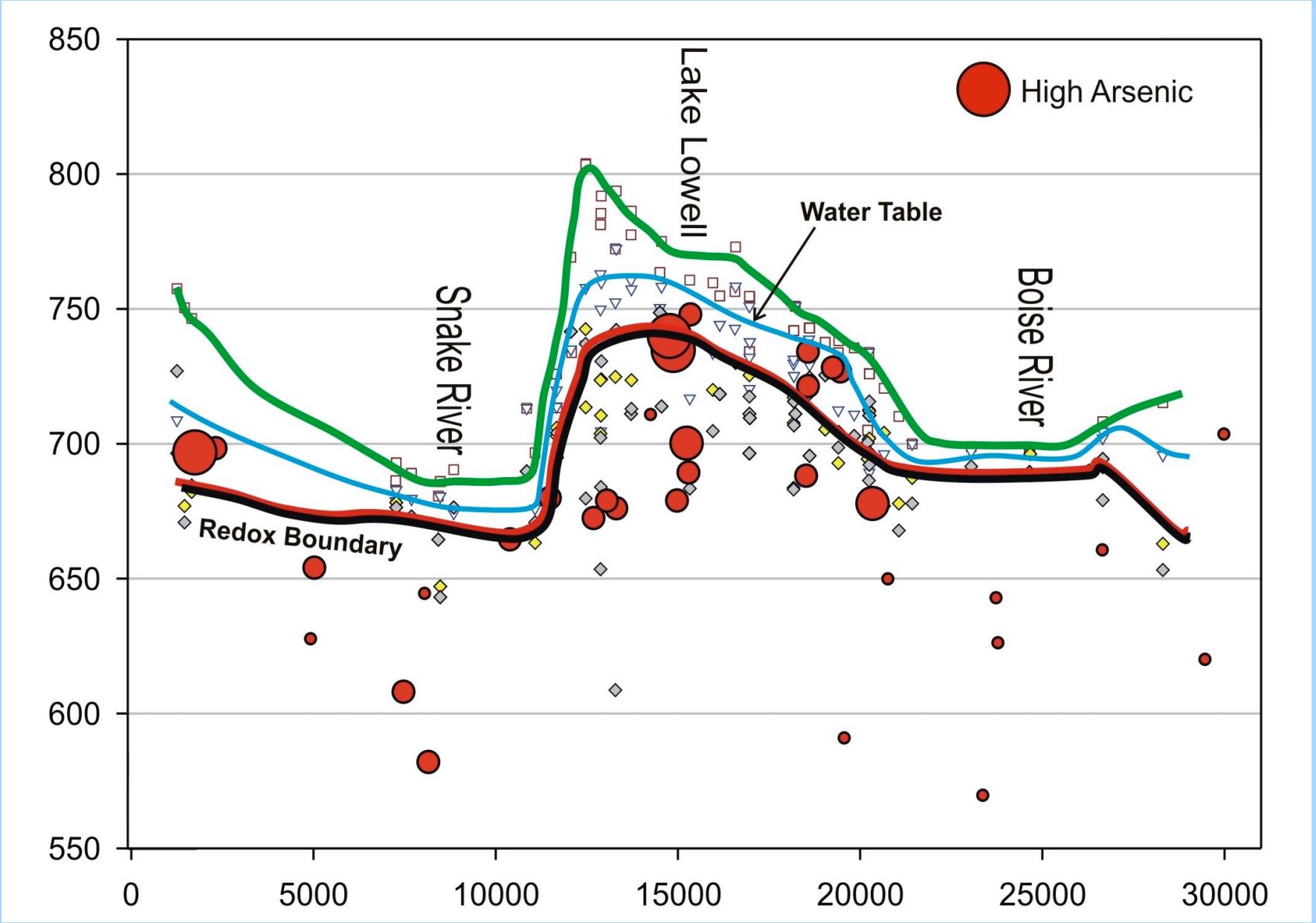


Fig.5

Monty Busbee, Graduate Student

Vertical Distribution of Arsenic is Also Heterogeneous



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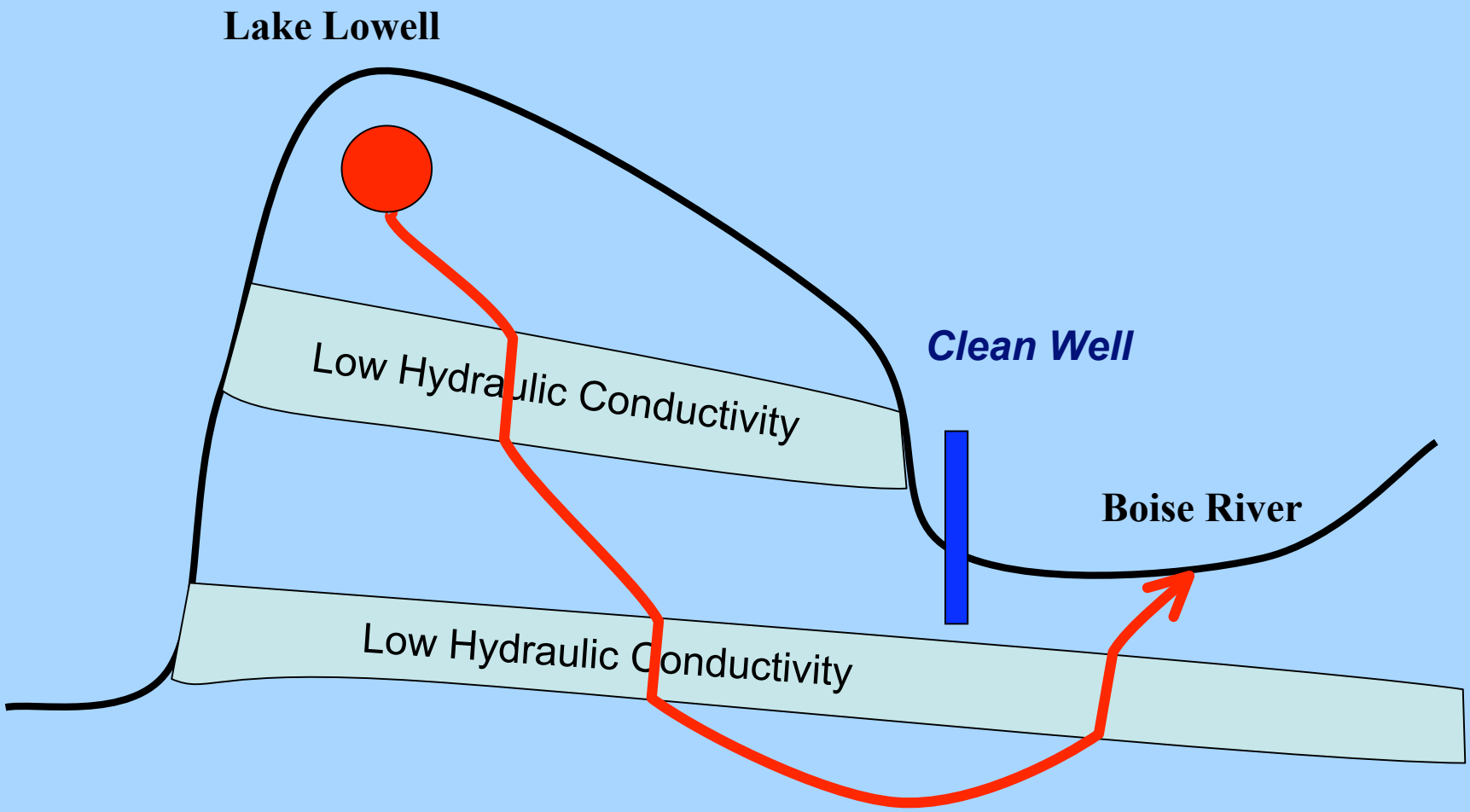
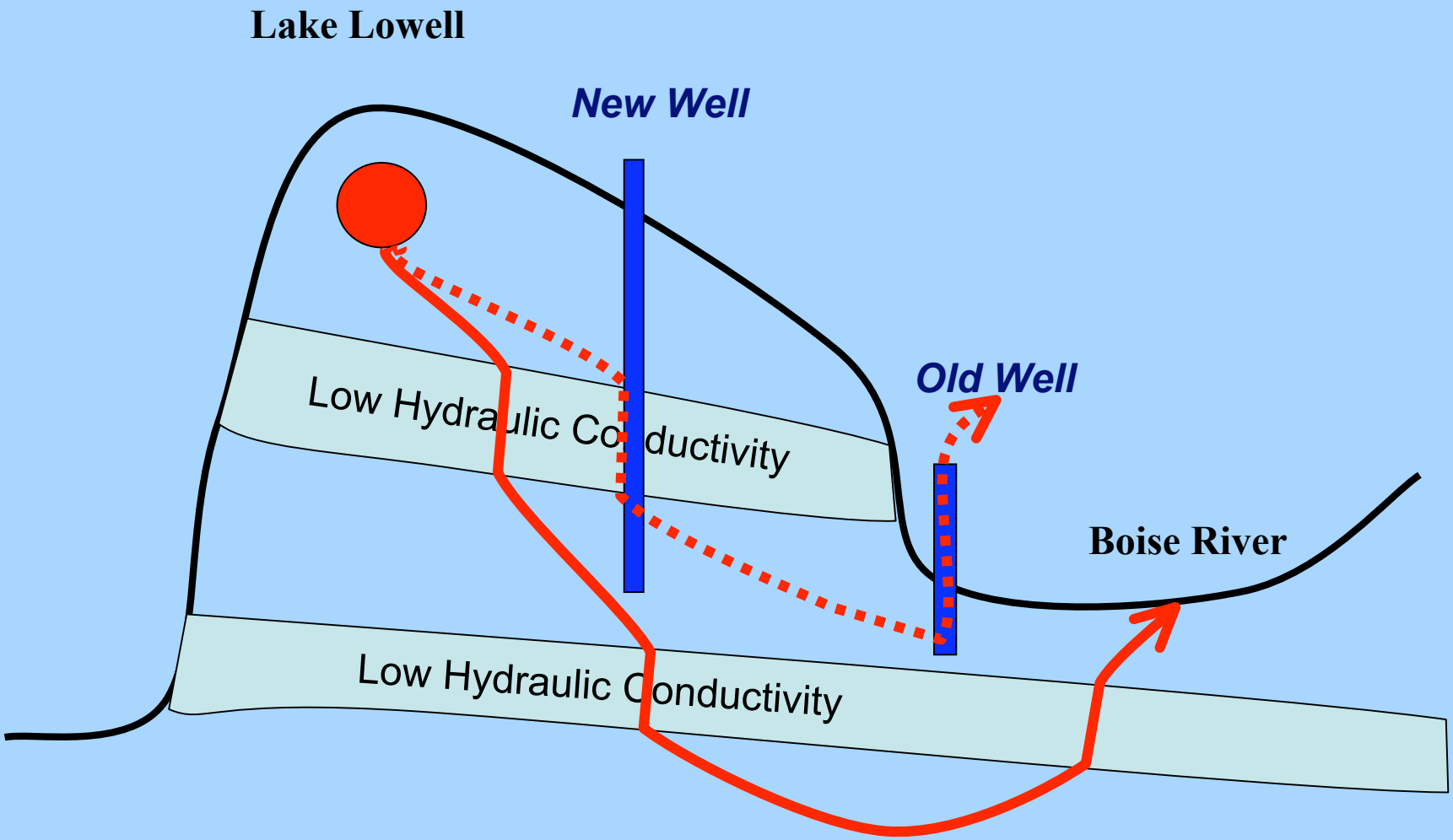
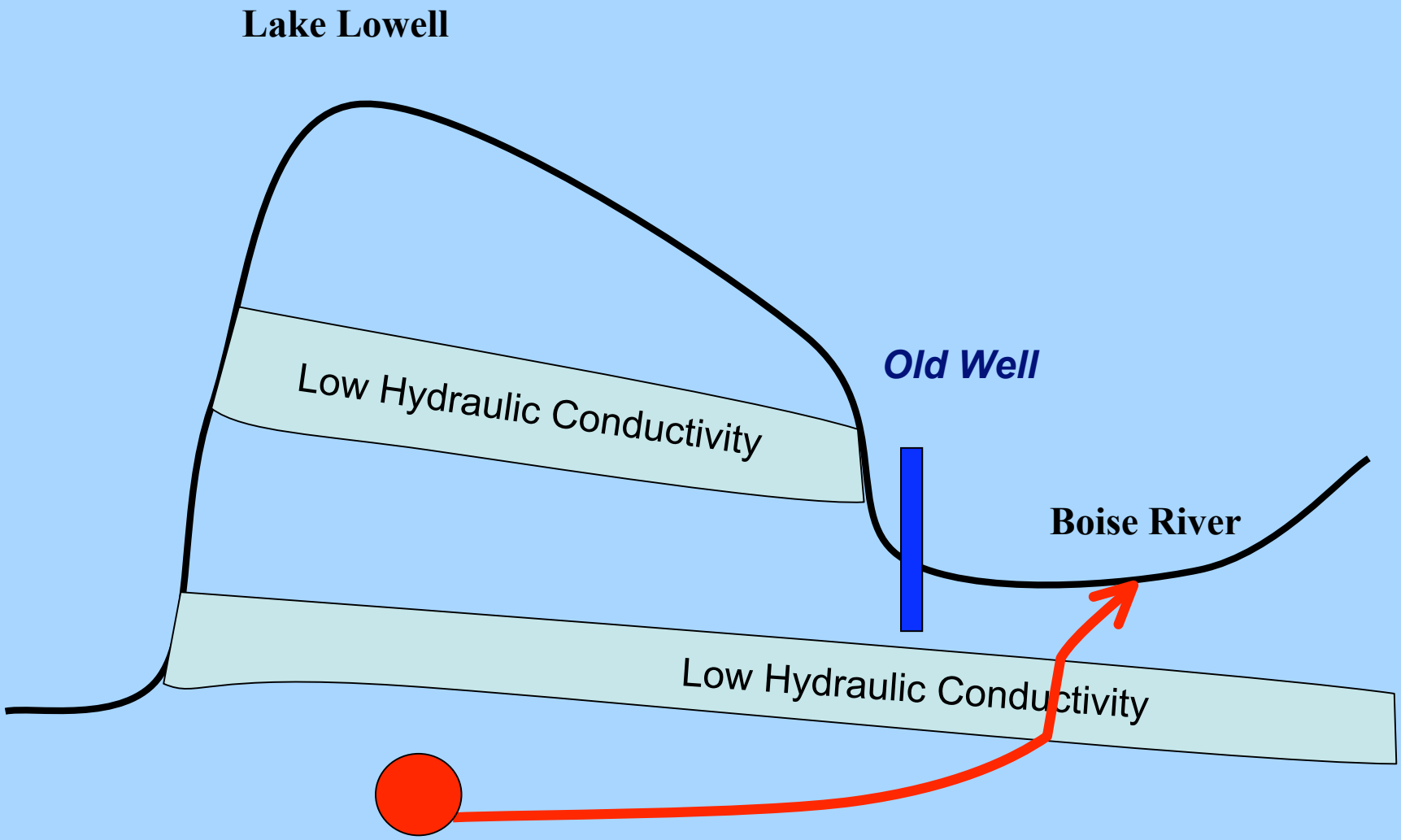


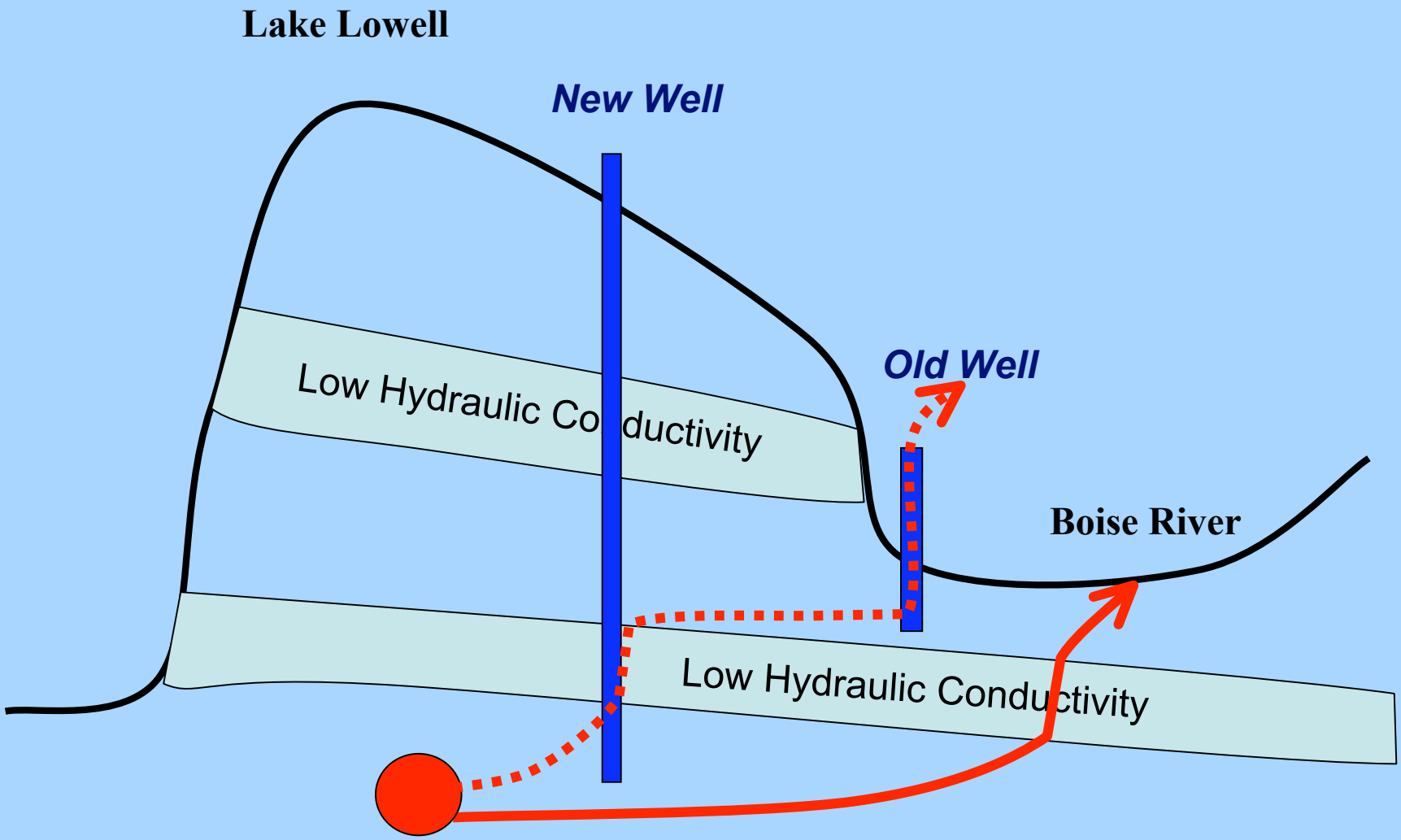
Contaminated waters are heterogeneous, some wells are clean, others are not. We are not yet able to predict Where contamination will be elevated



New wells can change flow paths and CHANGE what water goes to a distant well, with a potential to induce contamination.



Importantly, the way in which a poorly sealed well will induce a change in flow is not easily predicted



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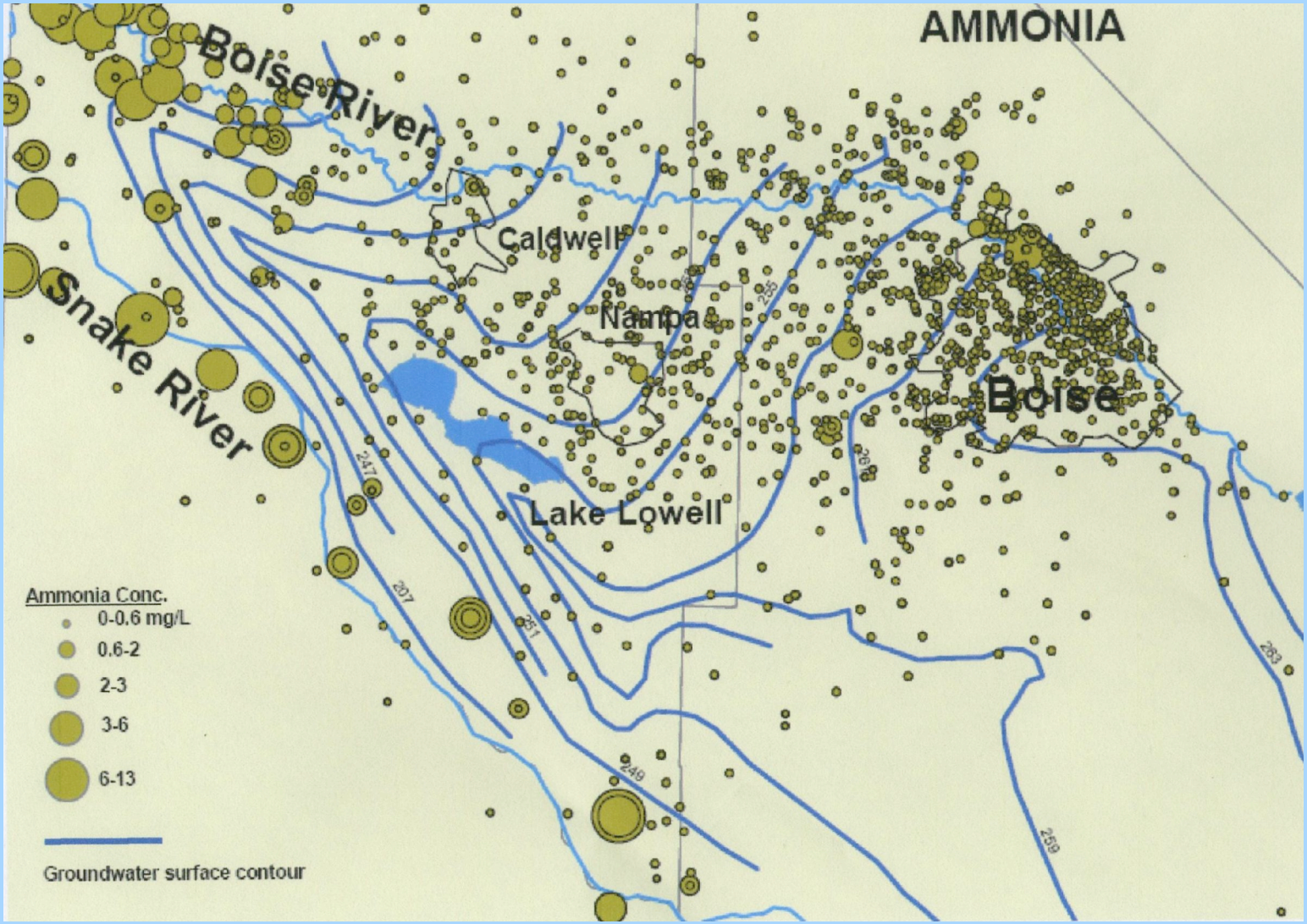
Other Emerging Non-Point Source Contaminants Include Nitrate/Ammonia and Radionuclides



Summary

- **Historically, focus was on point source contamination, impact of poorly sealed wells easier to predict, easier to prevent.**
- **Many emerging contaminants are non-point source, by nature these are poorly constrained.**
- **Impact of poorly sealed wells difficult to predict and, thus very difficult to prevent.**